P.06/12

Serial No. 09/967,218

Docket No.: KCC-15,529

### REMARKS

Applicants' undersigned attorney thanks the Examiner for the Examiner's comments. Applicants respectfully request reconsideration of this patent application, particularly in view of the above Amendment and the following remarks. Currently, Claims 1 and 4-23 are pending, with Claims 12-19 withdrawn from consideration.

#### Amendment to the Claims

Claims 1, 4-11, and 20-23 have been examined, with no claims being allowed. Claims 1 and 20 have been amended. No new matter has been added by this amendment.

Applicants have amended Claims 1 and 20 to include the limitation of the fibers comprising at least 80% by weight polypropylene. Support for this limitation is provided in Tables 21-24 on pages 29-31, with express support in the titles of the tables in combination with the data in the tables and the description on page 27.

No additional fee is due for this Amendment because the number of independent claims remains unchanged and the total number of claims also remains unchanged.

#### Election/Restrictions

Applicants maintain their traversal of the restriction requirement mailed 14 July 2004, to which Applicants replied on 05 August 2004. Applicants' basis for traversal is that the Examiner has issued four separate Office Actions in which all of the claims, including all of the species, have been examined. Thus, the Examiner has shown that the search and examination of the entire application has been made (four times) without serious burden.

The Examiner has indicated that this reasoning is not found persuasive because the Examiner has recognized that a restriction requirement would be proper upon the amendments filed 05 April 2004 (actually 02 April 2004). Applicants disagree that the amendments filed 02 April 2004 provide any independent or distinct

Docket No.: KCC-15,529

inventions that were not previously included in the claims. In fact, these amendments are summarized as follows:

- the elimination of two members from the Markush group in Claim 1,
- the explicit limitation in Claim 1 of the impact modifier having elastomeric properties,
- the limitation of the fibers comprising at least 75% by weight polypropylene in Claims 1, 12, and 20.

Instead of providing any independent or distinct inventions, these amendments narrow the scope of the claims, and further unify these claims. Thus, the restriction requirement mailed 14 July 2004 is improper.

#### Claim Rejections - 35 U.S.C. §102

### A. Collier, IV et al.

The rejection of Claims 1-6, 10-14, and 18-23 in the Office Action mailed 05 January 2004 under 35 U.S.C. §102(b) as being anticipated by Collier, IV et al. (U.S. Patent 5,288,791) was respectfully traversed by Applicants in view of the Amendment and remarks filed 02 April 2004. The Examiner has indicated that this rejection has been withdrawn due to the Affidavit filed on 05 April 2004 (actually 02 April 2004). However, the Affidavit filed by Applicants did not address the Collier, IV et al. reference.

# B. Ogale et al.

The rejection of Claims 1, 4-5, 7, 9-10, and 20-22 under 35 U.S.C. §102(b) as being anticipated by Ogale et al. (U.S. Patent 5,346,756, hereinafter referred to as "Ogale") is respectfully traversed, particularly in view of the above Amendment and the following remarks.

As documented in the Response to Restriction Requirement and Telephone Interview Summary filed by Applicants on 03 May 2004, the Examiner initiated a telephone interview with Applicants' undersigned attorney on 13 April 2004, stating that she would allow the claims (Claims 1 and 4-23) if Applicants would either replace the term "comprising" with "consisting of," or change "at least 75%" to "at least 95%" in each of the independent claims. Applicants' undersigned attorney

Docket No.: KCC-15,529

reviewed the case and called the Examiner back suggesting that Applicants change "at least 75%" to "at least 80%," citing support for this limitation in Tables 21-24, with express support in the titles of the tables in combination with the data in the tables and the description on page 27. The Examiner agreed that the support was sufficient and that this change, to be made by Examiner's Amendment, would place the claims in condition for allowance.

The Examiner has repeated the same rejection over Ogale as stated in the previous Office Action. As Applicants explained in response to the previous Office Action, Ogale does not disclose each and every element or limitation of independent Claims 1 and/or 20. Furthermore, Applicants have amended the independent claims that are currently under consideration, namely Claims 1 and 20, to include the limitation previously agreed upon with the Examiner, namely the "at least 80%" limitation.

As explained in Applicants' previous Amendment, contrary to the Examiner's assertion, Ogale fails to disclose the amount of ethylene-propylene copolymer to be 1% in Col. 2, lines 35-37, or in Examples 1-2, because 20% x 50% is 10%, not 1%. Ogale also discloses fibers made up of 5 to about 95% propylene polymer material (A), which means that the olefin polymer material (B) must account for at least 5% of the fiber. Even if component (B) were the equivalent of an impact modifier, which Applicants believe is not the case, the amount of impact modifier recited in Applicants' Claim 1 (0.59-4%) is still less than the amount of any alleged impact modifier component disclosed by Ogale.

In Ogale, the propylene polymer material and the olefin polymer material are prepared by polymerization, generally by sequential polymerization in the case of the olefin polymer material, of the relevant monomers in the presence of a stereospecific Ziegler-Natta catalyst system having a solid catalyst component supported on a magnesium dihalide in active form. The olefin polymer material includes components (a) and (b), and optionally (c). As pointed out in Applicants' earlier response, and as evidenced by Schmidt et al. (U.S. Patent No. 5,804,658), polymerization of a mixture of ethylene, propylene, and a diene in the presence of a Ziegler-Natta catalyst system would result in an EPDM rubber. However, Ogale

Docket No.: KCC-15,529

discloses sequential polymerization of more than just ethylene, propylene, and a diene. More particularly, Ogale discloses polymerization of (a) a propylene polymer having an isotactic index of greater than 80, or a copolymer of propylene with ethylene or a C<sub>4</sub>-C<sub>8</sub> alpha-olefin or combinations thereof, containing over 80% propylene and having an isotactic index greater than 80, (b) a semi-crystalline copolymer fraction, which copolymer is insoluble in xylene at room or ambient temperature, and (c) a copolymer fraction of ethylene with propylene or a C<sub>4</sub>-C<sub>8</sub> alpha-olefin or combinations thereof, and optionally with minor amounts of a diene, said copolymer fraction containing less than 40% ethylene or a C<sub>4</sub>-C<sub>8</sub> alpha-olefin or combinations thereof. Since (a), (b), and (c) are polymerized prior to blending the resulting olefin polymer material with the propylene polymer material, the polymerization of (a), (b), and (c) in any order fails to result in EPDM per se because (c) must still be polymerized with (a) and (b). Consequently, Ogale fails to disclose a fiber comprising polypropylene blended with EPDM.

Additionally, Applicants' invention as recited in independent Claims 1 and 20 requires that a fiber include polypropylene blended with an impact modifier, wherein the impact modifier has elastomeric properties. More particularly, in Claim 1 the impact modifier is either ethylene-propylene-diene-monomer (EPDM), styrene/ethylene-co-butadiene/styrene (SEBS), styrene-poly(ethylene-propylene)-styrene-poly(ethylene-propylene) (SEPSEP), a multi-block elastomeric copolymer, polyurethane, polyamide, polyester, single-site or metallocene-catalyzed polyolefin having density less than about 0.89 grams/cc, or ethylene/styrene, while in Claim 20 the impact modifier is either EPDM, SEBS, or SEPSEP.

Ogale fails to disclose the combination of polypropylene blended with any impact modifier. In particular, Ogale fails to disclose the combination of polypropylene blended with any of the impact modifiers recited in Claims 1 and 20. As defined on page 7, lines 5-6, of the present application, and recited explicitly in Claims 1 and 20, the term "impact modifier" refers to "a synthetic material having elastomeric properties." Ogale fails to disclose a combination of polypropylene with a synthetic material having elastomeric properties.

Docket No.: KCC-15,529

The molecular structure of such block copolymers as SEBS and SEPSEP, for example, includes block segments of styrene monomer units and rubber monomer units. Prior to processing, polystyrene end-blocks are associated in rigid domains. "Physical crosslinking" via these domains yields a continuous three-dimensional network. During processing, in the presence of heat and shear or solvent, the polystyrene domains soften and permit flow. After cooling or solvent evaporation, the polystyrene domains reform and harden, locking the rubber network in place. This "physical crosslinking" and the reinforcing effect of the styrene domains give these polymers their high tensile strength. The rubber mid-block gives them their elasticity. Ogale fails to disclose any olefin polymers having the elastomeric properties of EPDM, SEBS, and/or SEPSEP.

Furthermore, Ogale discloses lower ethylene content random copolymers, whereas the present invention includes high ethylene content copolymers. More particularly, as known by those skilled in the art, EPDM and the rubber monomer units of the elastomeric block copolymers typically include at least 40% ethylene, or more particularly between about 48% and about 72% ethylene for EPDM. In contrast, Ogale discloses a random propylene terpolymer including from 1.5 to 5% ethylene (Col. 1, lines 43-46), or a propylene polymer composition including from 40 to 80% of a copolymer fraction that contains less than 40% ethylene (Col. 1, line 64 – Col. 2, line 12), such that the propylene polymer composition includes less than 16 to 32% ethylene. Consequently, the resulting material in Ogale is quite different from the fibers of the present invention.

For at least the reasons presented above, Applicants respectfully submit that Claims 1 and 20 are not anticipated by Ogale. Because Claims 4, 5, 7, and 9-10 depend from Claim 1, and Claims 21-22 depend from Claim 20, these claims are also not anticipated by Ogale. Thus, Applicants respectfully request withdrawal of this rejection.

Docket No.: KCC-15,529

## Claim Rejections - 35 U.S.C. §103

The rejection of Claims 6, 11, and 23 under 35 U.S.C. §103(a) as being unpatentable over Ogale as applied to Claims 1 and 20 above, further in view of Collier, is respectfully traversed.

As discussed above, Ogale fails to disclose a combination of polypropylene blended with anything that would be considered an "impact modifier" as defined by Applicants. In particular, Ogale fails to disclose the combination of polypropylene blended with any of the impact modifiers recited in Applicants' Claims 1 and 20.

Even if the fibers of Ogale were formed into staple or absorbent fibers based on the staple and absorbent fibers disclosed in Collier, the resulting staple or absorbent fibers would not disclose or suggest Applicants' claimed invention because the composition of the Ogale fibers is different than the composition of the fibers claimed by Applicants.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on Applicants' disclosure.

There is no suggestion or motivation to modify or combine the teachings of Collier and Ogale. Not only are the fibers in Collier in Ogale very different from Applicants' claimed fibers, but the fibers in Collier and Ogale are also very different from one another. Collier discloses elastic fibers composed primarily of SEPS or a mixture of SEPS and SEBS, and a tackifying resin. A minor amount of polypropylene may be present in the fibers. Ogale discloses fibers including a blend of a propylene polymer material and an olefin polymer material polymerized in the presence of a particular catalyst system. Even if the teachings of Collier and Ogale were combined, there is no reasonable expectation that a person skilled in the art

Docket No.: KCC-15,529

would derive a fiber comprising at least 75% by weight polypropylene blended with an impact modifier because Collier discloses a very small amount of polypropylene and Ogale discloses a wide range of polypropylene content, but neither reference discloses or suggests a minor amount of an impact modifier having elastomeric properties.

For at least the reasons given above, Applicants respectfully submit that the teachings of Ogale in view of Collier fail to disclose or suggest Applicants' claimed invention. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

#### Conclusion

Applicants believe that this case is now in condition for allowance. If the Examiner feels that any issues remain, then Applicants' undersigned attorney would like to discuss the case with the Examiner. The undersigned can be reached at (847) 490-1400.

Respectfully submitted,

Melanie I. Rauch

Registration No. 40,924

Pauley Petersen & Erickson 2800 West Higgins Road, Suite 365 Hoffman Estates, Illinois 60195 (847) 490-1400 FAX (847) 490-1403